

Practitioner's Docket No. NEB-208-209

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Tzertzinis, George; Feehery, George; Tuckey, Corinna ; Noren, Christopher;
and McReynolds, Larry

Application No.: 10/622,240

Group No.: 1645

Filed: July 18, 2003

Examiner: N/A

For: Methods and Compositions Relating to Gene Silencing

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
WITHIN THREE MONTHS OF FILING OR
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. § 1.97(b)).

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING
INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. § 1.97(b).

CERTIFICATION UNDER 37 C.F.R. ' 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is *mandatory*;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

X deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

37 C.F.R. § 1.8(a)

X with sufficient postage as first class mail.

37 C.F.R. § 1.10*

G as "Express Mail Post Office to Addressee"

Mailing Label No. _____ (mandatory)

TRANSMISSION

G facsimile transmitted to the Patent and Trademark Office, (703) _____

Signature

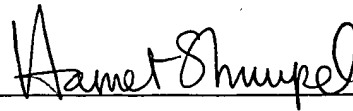
Date: February 9, 2004

Leslie Goldberg

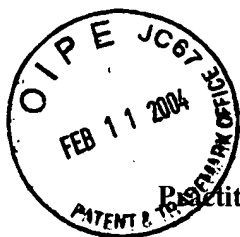
(type or print name of person certifying)

* Only the date of filing (' 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under ' 1.8 continues to be taken into account in determining timeliness. See ' 1.703(f). Consider "Express Mail Post Office to Addressee" (' 1.10) or facsimile transmission (' 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

Date: February 9, 2004

A handwritten signature in black ink, reading "Harriet Strimpel", written over a horizontal line.

Harriet M. Strimpel, D. Phil.
Registration No. 37,008
New England Biolabs, Inc.
32 Tozer Road
Beverly, MA 01915
978-927-5054
Customer No. 28986



Patentitioner's Docket No. NEB-208-209

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: George Tzertzinis, George Feehery, Corinna Tuckey, Christopher Noren, and
Larry McReynolds

Application No.: 10/622,240

Group No.: 1645

Filed: July 18, 2003

Examiner: N/A

For: Methods and Compositions Relating to Gene Silencing

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

1. Forms PTO/SB/08A and 08B (formerly Form PTO-1449)
2. Copies of Listed Information Items Accompanying This Statement
3. Identification of Person(s) Making This Information Disclosure Statement

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

*(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)*

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

X deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

37 C.F.R. § 1.8(a)

X with sufficient postage as first class mail.

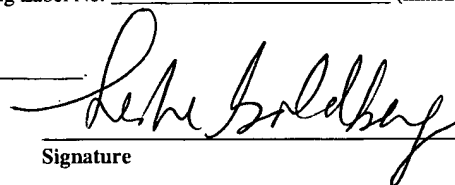
37 C.F.R. § 1.10*

G as "Express Mail Post Office to Addressee"

Mailing Label No. _____ (mandatory)

TRANSMISSION

G facsimile transmitted to the Patent and Trademark Office, (703) _____ - _____



Signature

Date: February 9, 2004

Leslie Goldberg

(type or print name of person certifying)

* Only the date of filing (' 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under ' 1.8 continues to be taken into account in determining timeliness. See ' 1.703(f). Consider "Express Mail Post Office to Addressee" (' 1.10) or facsimile transmission (' 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

Section 1. Forms PTO/SB/08A and 08B (formerly Form PTO-1449)

(Insert form(s) PTO/SB/08A [Form 6-2] and/or form(s) PTO/SB/08B [Form 6-2.1].)

Section 2. Copies of Listed Information Items Accompanying This Statement

Legible copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement.


AA-AH, BA-BJ, CA-DE

Section 3. Identification of Person Making This Information Disclosure Statement

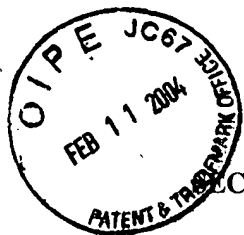
The person making this certification is:

- a. the practitioner who signs below on the basis of the information in the practitioner's file.

Date: February 9, 2004



Harriet M. Strimpel
Registration No. 37,008
New England Biolabs, Inc.
32 Tozer Road
Beverly, MA 01915
978-927-5054
Customer No. 28986



SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Tzertzinis et al. Attorney Docket: NEB-208/9-US
 Serial No: 10/622,240 Art Group Unit: 1645
 Date Filed: 7/18/03 Examiner Name:
 Invention: Methods and Compositions Relating to Gene Silencing

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

U.S. PATENT DOCUMENTS					
Examiner Initials	Reference Number	Document Number	Issue/Pub. Date	Inventor	Class/Subclass
	AA	US 6,506,559	01/14/03	Fire et al.	C12Q 1/68
	AB	US20030125281	07/03/03	Lewis et al.	A61K 048/00
	AC	US20020162126	10/31/02	Beach et al.	A01K 067/00
	AD	US20030108923	06/12/03	Tuschl et al.	C12Q 001/68
	AE	US20020173478	11/21/02	Gewirtz	A61K 048/00
	AF	US20020114784	08/22/02	Li et al.	A61K 048/00
	AG	US20020086356	07/04/02	Tuschl et al.	C12P 021/02
	AH	US20020132346	09/19/02	Cibelli	C12N 5/08

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Reference Number	Country Code	Document Number	Publication Date	Patentee or Applicant	Class/Subclass
	BA	WO	01/68836	20/09/01	Genetica	C12N 15/10
	BB	WO	01/75164	11/10/01	Whitehead	C12Q 1/68
	BC	WO	99/32619	01/07/99	Carnegie	C12N 15/11
	BD	WO	02/055693	18/07/02	Ribopharma	C12N 15/11
	BE	EP	1144623	28/08/02	Ribopharma	C12N 15/11
	BF	WO	01/70949	11/06/02	Benitec	C12N 15/11
	BG	WO	01/36646	25/05/01	Cancer Res.	C12N 15/63
	BH	AU	3564702	13/06/02	Benitec	C12N 15/11
	BI	NZ	506648	29/08/03	Benitec	C12N 15/11
	BJ	WO	01/29058	26/04/01	U.Mass	C07H 21/04

OTHER DOCUMENTS			
Examiner Initials	Reference Number	Author	Title of Article, Title of Journal, Volume Number, Page Numbers, Date
	CA	Fire et al.	"Potent and specific genetic interference by double-stranded RNA in <i>Caenorhabditis elegans</i> ," Nature 391: 806-811 (1998)
	CB	Yang et al.	"Specific Double-Stranded RNA Interference in Undifferentiated Mouse Embryonic Stem Cells," Mol. Cell. Biol. 21: 7807-7816 (2001)

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Tzertzinis et al. Attorney Docket: NEB-208/9-US
Serial No: 10/622,240 Art Group Unit: 1645
Date Filed: 7/18/03 Examiner Name:
Invention: Methods and Compositions Relating to Gene Silencing

LIST OF OTHER DOCUMENTS CONTINUED

OTHER DOCUMENTS			
Examiner Initials	Reference Number	Author	Title of Article, Title of Journal, Volume Number, Page Numbers, Date
	CC	Elbashir et al.	"Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," Nature 411: 494-498 (2001)
	CD	Hammond et al.	"Post-Transcriptional Gene Silencing by Double-Stranded RNA," Nature Reviews Genetics 2: 110-119 (2001)
	CE	Sharp	"RNA interference-2001," Genes & Dev. 15: 485-490 (2001)
	CF	Holen et al.	"Positional effects of short interfering RNAs targeting the human coagulation trigger Tissue Factor," Nucleic Acids Res. 30: 1757-1766 (2002)
	CG	Donze and Picard	"RNA interference in mammalian cells using siRNAs synthesized with T7 RNA polymerase," Nucleic Acids Res. 30: No. 10 e46 (2002)
	CH	Paddison et al.	"Short hairpin RNAs (shRNAs) induce sequence-specific silencing in mammalian cells," Genes and Dev. 16:948-958 (2002)
	CI	Bernstein et al.	"Role for a bidentate ribonuclease in the initiation step of RNA interference," Nature 409:363-366 (2001)
	CJ	Paddison et al.	"Stable suppression of gene expression by RNAi in mammalian cells," Proc. Natl. Acad. Sci. 99:1443-1448 (2002)
	CK	Myers et al.	"Recombinant Dicer efficiently converts large dsRNAs into siRNAs suitable for gene silencing," Nature Biotechnology, 21:324-328 (2003)
	CL	Yang et al.	"Short RNA duplexes produced by

			hydrolysis with <i>Escherichia coli</i> RNase III mediate effective RNA interference in mammalian cells, " Proc. Natl. Acad. Sci. 99: 9942-9947 (2002)
	CM	Zhang et al.	"Human Dicer preferentially cleaves dsRNAs at their termini without a requirement for ATP," EMBO Journal 21:5875-5885 (2002)
	CN	Amarzguioui et al.	"Tolerance for mutations and chemical modifications in a siRNA," Nucleic Acids Res. 31:589-595 (2003)
	CO	Li et al.	"Ribonuclease III cleavage of a bacteriophage T7 processing signal. Divalent cation specificity, and specific anion effects," Nucleic Acids Res. 21:1919-1925 (1993)
	CP	Zhang and Nicholson	"Regulation of ribonuclease III processing by double-helical sequence antideterminants," Proc. Natl. Acad. Sci. 94:13437-13441 (1997)
	CQ	Nicholson	"Function, mechanism and regulation of bacterial ribonucleases," FEMS Microbiol. Reviews 23:371-390 (1999)
	CR	Sun and Nicholson	"Mechanism of Action of <i>Escherichia coli</i> Ribonuclease III. Stringent Chemical Requirement for the Glutamic Acid 117 Side Chain and Mn ²⁺ Rescue of the Glu117Asp Mutant," Biochem. 40:5102-5110 (2001)
	CS	Hannon	"RNA interference," Nature 418:244-251 (2002)
	CT	Elbashir et al.	"RNA interference is mediated by 21- and 22-nucleotide RNAs," Genes & Dev. 15:188-200 (2001)
	CU	Martinez et al.	"Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," Cell 110: 563-574 (2002)
	CV	Lee et al.	"An Extensive Class of Small RNAs in <i>Caenorhabditis elegans</i> ," Science 294: 862-864 (2001)
	CW	Elbashir et al.	"Functional anatomy of siRNAs for mediating efficient RNAi in <i>Drosophila melanogaster</i> embryo lysate," EMBO Journal 20:6877-6888 (2001)
	CX	Milligan et al.	"Oligoribonucleotide synthesis using T7 RNA polymerase and synthetic DNA templates," Nucleic Acids Res. 15:8783-8798 (1987)
	CY	Sun et al.	"Intrinsic Double-Stranded-RNA Processing Activity of <i>Escherichia coli</i> Ribonuclease III Lacking the dsRNA-Binding Domain," Biochem. 40:14976-14984 (2001)
	CZ	Robertson et al.	"Purification and Properties of Ribonuclease III from <i>Escherichia coli</i> ," Journal of Biol. Chem. 243:82-91 (1968)

	DA	Byron et al.	"Inducing RNAi with siRNA Cocktails Generated by Rnase III," Ambion TechNotes Newsletter 10/1:4-7 (2003)
	DB	Zamore et al.	"RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," Cell 101:25-33 (2000)
	DC	Kawasaki et al.	"siRNAs generated by recombinant human Dicer induce specific and significant but target site-independent gene silencing in human cells," Nucleic Acids Res. 31/3:981-987 (2003)
	DD	Ambros	"microRNAs: Tiny Regulators with Great Potential," Cell 107:823-826 (2001)
	DE	Court	<u>Control of Messenger RNA Stability</u> , Belasco, J.G. et al, eds, Academic Press, New York (1993) 71-116
	DF	Sambrook et al.	Molecular Cloning: A Laboratory Manual, 3 rd ed., Cold Spring Harbor Press, Cold Spring, NY: 7.75-7-81 (2001)

Examiner Signature: _____

Date Considered: _____

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation *if not* in conformance and not considered. Include copy of this form with next communication to applicant.